

AMENDMENTS TO THE CLAIMS

CLAIMS

The following is a complete listing of the claims under 37 C.F.R. 1.121(A)

1-19. (cancelled)

20. (withdrawn) A process for making a water-insoluble alginate sponge or foam product to be utilized in the preparation of wound dressings or surgical products comprising the steps of:

(I) making an aqueous solution of a water soluble alginate composition;

(II) while allowing the total composition of (I) to be mixed, adding a di- or trivalent cation metal ion salt capable of complexing the water-soluble alginate to form water insoluble alginate hydrogels;

(III) introducing into the alginate composition the components sodium tetraborate and ammonium hydroxide;

(IV) while continuing to mix the entire composition, introducing a gas into the alginate composition;

(V) pouring said composite mixture onto a fibrous cloth contained in a tray or dish which fibrous cloth will become affixed to the alginate composition after the water component of the mixture has evaporated.

21. (withdrawn) The process of claim 20 where said gas producing the foam is selected from a group consisting of nitrogen, carbon dioxide, argon, neon, or mixtures thereof.

22. (withdrawn) The process of claim 20 in which the fibrous cloth is selected from cloths prepared from cotton, polyester, wool, nylon, rayon or mixtures thereof.

23. (withdrawn) The process of claim 20 wherein said water-soluble alginate is selected from a group consisting of ammonium, magnesium, potassium, and sodium salts of alginate or mixtures thereof.

24. (withdrawn) The process of claim 20 wherein said polyvalent cation is selected from a metal ion derived from salts selected from the group consisting

of alkaline earth metal salts, alkali metal salts, transition metal salts and mixtures thereof.

25. (withdrawn) The process of claim 20 wherein said metal cation is selected from the group consisting of calcium, barium, copper, magnesium, iron, zinc, aluminum, manganese, silver, strontium, and mixtures thereof.

26. (withdrawn) The process of claim 20 wherein a medicament is added to the alginate foam composition.

27. (withdrawn) The process of claim 28 wherein said medicament is selected from the group consisting of collagen, maltodextrin, antibiotics, antibacterial agents, anti-inflammatory agents, ascorbic acid, amino acids, and mixtures thereof.

28. (withdrawn) The process of claim 20 wherein a hydrophilic agent is added to the alginate foam composition.

29. (withdrawn) The process of claim 28 wherein the hydrophilic agent is a sodium acrylate polymer.

30. (withdrawn) The process of claim 20 wherein a plasticizer is added to the foam composition.

31. (withdrawn) The process of claim 30 wherein said plasticizer is selected from a group consisting of glycerin, propylene glycol, ethylene glycol, and polyethylene glycol or mixtures thereof.

32. (withdrawn) The process of claim 20 wherein a surface active agent is added to the alginate foam composition.

33. (withdrawn) The process of claim 32 wherein said surface active agent is selected from a group consisting of polyoxyethylene sorbitan monoaurate, polyoxyethylene, sorbitan, monopalmitate, polyoxyethylene sorbitan monooleate, polyoxyethylene sorbitan trioleate, polyoxyethylene-polyoxypropylene block polymer, or a mixture thereof.

34. (withdrawn) The process of claim 20 wherein the di- or trivalent cation metal salt complexing the water soluble alginate is calcium sulphate.

35. (withdrawn) The process of claim 20 wherein the di- or trivalent cation metal salt complexing the water soluble alginate is calcium chloride.

36. (withdrawn) A process for making a water-insoluble alginate sponge or foam product to be utilized in the preparation of wound dressings or surgical products comprising the steps of:

- (I) making an aqueous solution of a water soluble alginate composition;
- (II) while allowing the total composition of (I) to be mixed, adding a di-, or trivalent cation metal salt capable of complexing the water-soluble alginate to form water-insoluble alginate hydrogels;
- (III) adding into the mixture (II) a gaseous foam-forming or effervescent compound(s) and a water-soluble acid and,
- (IV) introducing into the stirred alginate foam composition a hydrophilic polymer, sodium tetraborate, and ammonium hydroxide,
- (V) sterilizing the water-insoluble alginate sponge or foam preparation as prepared above and adding aseptically to it a viable cell suspension, and,
- (VI) aseptically pouring said composite mixture into a dish or tray which is permitted to stand until the water is component of the mixture has evaporated.

37. (withdrawn) The process of claim 36 in which the composite mixture is aseptically poured onto a fibrous cloth contained in a dish or tray, which fibrous cloth will be become affixed to the alginate composition after the water component of the mixture has evaporated.

38. (withdrawn) The process of claim 37 wherein said fibrous cloth is selected from cloths prepared from cotton, polyester, wool, nylon, rayon or mixtures thereof.

39. (withdrawn) The process of claim 36 wherein said water-soluble alginate is selected from group consisting of ammonium, magnesium, potassium, and sodium salts of alginate or mixtures thereof.

40. (withdrawn) The process of claim 36 wherein said polyvalent cation is selected from a metal ion derived from salts selected from the group consisting of alkaline earth metal salts, alkali metal salts, transition metal salts, and mixtures thereof.
41. (withdrawn) The process of claim 36 wherein said cation is selected from the group consisting of calcium, barium, copper, magnesium, iron, zinc, aluminum, manganese, silver, strontium, and mixtures thereof.
42. (withdrawn) The process of claim 36 wherein the effervescent compound is selected from a group consisting of the alkali metal carbonates.
43. (withdrawn) The process of claim 42 wherein said effervescent compound is sodium carbonate.
44. (withdrawn) The process of claim 42 wherein said effervescent compound is sodium bicarbonate.
45. (withdrawn) The process of claim 36 wherein said water-soluble acid is selected from the group consisting of acetic, lactic, malic, gluconic, hydrochloric, and ascorbic acids.
46. (withdrawn) The process of claim 36 wherein a medicament is added to the alginate foam composition.
47. (withdrawn) The process of claim 46 wherein said medicament is selected from the group consisting of collagen, maltodextrin, antibiotics, antibacterial agents, anti-inflammatory agents, ascorbic acid, amino acids, and mixtures thereof.
48. (withdrawn) The process of claim 36 wherein the di- or trivalent cation metal salt complexing the water soluble alginate is calcium sulphate.
49. (withdrawn) The process of claim 36 wherein the di- or trivalent cation metal salt complexing the water soluble alginate is calcium chloride.
50. (withdrawn) The process of claim 36 wherein said plasticizer is selected from a group consisting of glycerin, propylene glycol, ethylene glycol, and polyethylene glycol or mixtures thereof.
51. (withdrawn) The process of claim 36 wherein said surface active agent is selected from a group consisting of polyoxyethylene sorbitan monolaurate, polyoxyethylene sorbitan monopalmitate, polyoxyethylene sorbitan monooleate,

polyoxyethylene sorbitan trioleate, polyoxyethylene- polyoxypropylene block polymer or a mixture thereof.

52. (withdrawn) The process of claim 36 wherein the hydrophilic polymer is a sodium polyacrylate polymer.

53. (withdrawn) The process of claim 36 wherein the water component of the mixture is evaporated, by drying in an oven at a temperature not to exceed 70 degrees centigrade.

54. (withdrawn) The process of claim 36 wherein the water component of the mixture is evaporated at room temperature.

55. (withdrawn) A process for making a water-insoluble alginate sponge or foam product to be utilized in the preparation of wound dressings or surgical products comprising the steps of:

(I) making an aqueous solution of a water-soluble alginate composition;

(II) while allowing the total composition of (I) to be mixed, adding a di- or trivalent cation metal ion salt capable of complexing the water-soluble alginate to form a water-insoluble alginate hydrogel;

(III) adding to the mixture of (II), a plasticizer, a surface active agent, sodium tetraborate, ammonium hydroxide, and a suitable medicinal agent;

(IV) while continuing to mix the entire composition (III), producing a foam in the composition (III) by introducing a biocompatible gas into said composition;

(V) pouring said composite mixture of (IV) onto a fibrous cloth contained in or on a tray, which fibrous cloth will become affixed to the alginate composition after the aqueous component of said composite mixture has evaporated.

56. (withdrawn) The process of claim 55 where said gas producing the foam is selected from a group consisting of nitrogen, carbon dioxide, argon, neon, or mixtures thereof.

57. (withdrawn) The process of claim 55 in which the fibrous cloth is selected from cloths prepared from cotton, polyester, wool, nylon, rayon, or mixtures thereof.
58. (withdrawn) The process of claim 55 wherein said water soluble alginate is selected from a group consisting of ammonium, magnesium, potassium, sodium salts of alginate, or mixtures thereof.
59. (withdrawn) The process of claim 55 wherein said di- or trivalent cation is selected from a metal ion derived from salts selected from the group consisting of alkaline earth metal salts, alkali metal salts, transition metal salts, and mixtures thereof.
60. (withdrawn) The process of claim 55 wherein said metal cation is selected from the group consisting of calcium, barium, copper, magnesium, iron, zinc, aluminum, manganese, silver, strontium, and mixtures thereof.
61. (withdrawn) The process of claim 55 wherein said medicament is selected from the group consisting of collagen, maltodextrin, antibiotics, antibacterial agents, anti-inflammatory agents, ascorbic acid, amino acids, and mixtures thereof.
62. (withdrawn) The process of claim 55 wherein said plasticizer is selected from a group consisting of glycerin, propylene glycol, ethylene glycol, and polyethylene glycol or mixtures thereof.
63. (withdrawn) The process of claim 55 wherein said surface active agent is selected from a group consisting of polyoxyethylene sorbitan monolaurate, polyoxyethylene sorbitan monopalmitate, polyoxyethylene sorbitan monooleate, polyoxyethylene sorbitan trioleate, polyoxyethylene-polyoxypropylene block polymer, or a mixture thereof.
64. (withdrawn) The process of claim 55 wherein the di- or trivalent cation metal salt complexing the water soluble alginate is calcium sulphate.
65. (withdrawn) The process of claim 55 wherein the di- or trivalent cation metal salt complexing the water soluble alginate is calcium chloride.
66. (withdrawn) A water-insoluble alginate sponge or foam wound

dressing prepared by the method of claim 55.

67. (withdrawn) A water-insoluble alginate sponge or foam wound dressing prepared by the method of claim 56.

68. (withdrawn) A water-insoluble alginate sponge or foam wound dressing prepared by the method of claim 57.

69. (withdrawn) A water-insoluble alginate sponge or foam wound dressing prepared by the method of claim 58.

70. (withdrawn) A water-insoluble alginate sponge or foam wound dressing prepared by the method of claim 59.

71. (withdrawn) A water-insoluble alginate sponge or foam wound dressing prepared by the method of claim 60.

72. (withdrawn) A water-insoluble alginate sponge or foam wound dressing prepared by the method of claim 61.

73. (withdrawn) A water-insoluble alginate sponge or foam wound dressing prepared by the method of claim 62.

74. (withdrawn) A water-insoluble alginate sponge or foam wound dressing prepared by the method of claim 63.

75. (withdrawn) A water-insoluble alginate sponge or foam wound dressing prepared by the method of claim 64.

76. (withdrawn) A water-insoluble alginate sponge or foam wound dressing prepared by the method of claim 65.

77. (previously presented) A process for making a water-insoluble alginate sponge or foam product to be utilized in the preparation of wound dressings or surgical products comprising the steps of:

- (I) making an aqueous solution of a water-soluble alginate composition;
- (II) while allowing the total composition of (I) to be mixed, adding a di-or trivalent cation metal ion salt capable of complexing the water-soluble alginate to form a water-insoluble alginate hydrogel;
- (III) adding to the mixture of (II), a plasticizer, a surface active

agent, sodium tetraborate, ammonium hydroxide, and a suitable medicinal agent;

- (IV) while continuing to mix the entire composition (III), adding an effervescent compound capable of effervescence upon reaction with a water-soluble acid;
- (V) adding to the composition (IV) a water-soluble acid;
- (VI) pouring said composite mixture of (V) onto a fibrous cloth contained in or on a try, which fibrous cloth will become affixed to the alginate composition after the aqueous component of said composite mixture has evaporated.

78. (previously presented) The process of claim 77 wherein the effervescent compound is selected from a group consisting of the alkali metal carbonates.

79. (previously presented) The process of claim 78 wherein said effervescent compound is sodium carbonate.

80. (previously presented) The process of claim 77 wherein said effervescent compound is sodium bicarbonate.

81. (previously presented) The process of 77 wherein said water soluble acid is selected from the group consisting of acetic, lactic, malic, gluconic, hydrochloric, and ascorbic acids.

82. (previously presented) The process of claim 77 in which the fibrous cloth is selected from cloths prepared from cotton, polyester, wool, nylon, rayon or mixtures thereof.

83. (previously presented) The process of claim 77 wherein said water-soluble alginate is selected from a group consisting of ammonium, magnesium, potassium, sodium salts of alginate, or mixtures thereof.

84. (previously presented) The process of claim 77 wherein said di- or trivalent cation is selected from a metal ion derived from salts selected from the group consisting of alkaline earth metal salts, alkali metal salts, transition metal salts, and mixtures thereof.

85. (previously presented) The process of claim 77 wherein said metal cation is selected from the group

consisting of calcium, barium, copper, magnesium, iron, zinc, aluminum, manganese silver, strontium, and mixtures thereof.

86. (previously presented) The process of claim 77 wherein said medicament is selected from the group consisting of collagen, maltodextrin, antibiotics, antibacterial agents, an inflammatory agents, ascorbic acid, amino acids, and mixtures thereof.
87. (previously presented) The process of claim 77 wherein said plasticizer is selected from a group consisting of glycerin, propylene glycol, ethylene glycol, and polyethylene glycol or mixtures thereof.
88. (previously presented) The process of claim 77 wherein said surface active agent is selected from a group consisting of polyoxyethylene sorbitan monolaurate, polyoxyethylene sorbitan monopalmitate polyoxyethylene sorbitan monooleate, polyoxyethylene sorbitan trioleate, polyoxyethylene-polyoxypropylene block polymer, or a mixture thereof.
89. (previously presented) The process of claim 77 wherein the di- or trivalent cation metal salt complexing the water soluble alginate is calcium sulphate.
90. (previously presented) The process of claim 77 where in the di-or trivalent cation metal salt complexing the water-soluble alginate is calcium chloride.
91. (previously presented) A water-insoluble alginate sponge or foam wound dressing prepared by the method of claim 77.
92. (previously presented) A water-insoluble alginate sponge or foam wound dressing prepared by the method of claim 78.
93. (previously presented) A water-insoluble alginate sponge or foam wound dressing prepared by the method of claim 79.
94. (previously presented) A water-insoluble alginate sponge or foam wound dressing prepared by the method of claim 80.
95. (previously presented) A water insoluble alginate sponge or foam wound dressing prepared by the method of claim 81.
96. (previously presented) A water-insoluble alginate sponge or foam wound dressing prepared by the method of claim 82.
97. (previously presented) A water-insoluble alginate sponge or foam wound

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- dressing prepared by the method of claim 83.
98. (previously presented) A water-insoluble alginate sponge or foam wound dressing prepared by the method of claim 84.
99. (previously presented) A water-insoluble alginate sponge or foam wound dressing prepared by the method of claim 85.
100. (previously presented) A water-insoluble alginate sponge or foam wound dressing prepared by the method of claim 86.
101. (previously presented) A water-insoluble alginate sponge or foam wound dressing prepared by method of claim 87.
102. (previously presented) A water-insoluble alginate sponge or foam wound dressing prepared by the method of claim 88.
103. (previously presented) A water-insoluble alginate sponge or foam wound dressing prepared by the method of claim 89.
104. (previously presented) A water-insoluble alginate sponge or foam wound dressing prepared by the method of claim 90.
105. (previously presented) The process of claim 77 in which the composition of (V) is sterilized.
106. (previously presented) The process of claim 105 in which the medicinal agent is a suspension of viable cells added to the sterilized composite mixture.
107. (previously presented) The process of claim 106 in which the composite mixture is poured onto a fibrous cloth contained in or on a tray, which fibrous cloth will become affixed to the ~~alignate~~ alginate composition after the aqueous component of said composite mixture has evaporated.
108. (previously presented) The process of claim 106 in which the viable cells are mast cells.
109. (previously presented) The composition of claim 106 in which the viable cells are skin tissue cells.
110. (previously presented) The process of claim 109 wherein the effervescent compound is selected from a group consisting of the alkali metal carbonates.
111. (previously presented) The process of claim 110 wherein said effervescent compound is sodium carbonate.

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112. (previously presented) The process of claim 106 wherein said effervescent compound is sodium bicarbonate.
113. (previously presented) The process of 106 wherein said water soluble acid is selected from the group consisting of acetic, lactic, malic, gluconic, hydrochloric, and ascorbic acids.
114. (previously presented) The process of claim 107 in which the fibrous cloth is selected from cloths prepared from cotton, polyester, wool, nylon, rayon, or mixtures thereof.
115. (previously presented) The process of claim 106 wherein said water-soluble alginate is selected from a group consisting of ammonium, magnesium, potassium, sodium salts of alginate, or mixtures thereof.
116. (previously presented) The process of claim 106 wherein said di- or trivalent cation is selected from a metal ion derived from salts selected from the group consisting of alkaline earth metal salts, alkali metal salts, transition metal salts, and mixtures thereof.
117. (previously presented) The process of claim 106 wherein said metal cation is selected from the group consisting of calcium, barium, copper, magnesium, iron, zinc, aluminum, manganese, silver, strontium, and mixtures thereof.
118. (previously presented) The process of claim 106 wherein said medicament is selected from the group consisting of collagen, maltodextrin, antibiotics, antibacterial agents, anti-inflammatory agents, ascorbic acid, amino acids, and mixtures thereof.
119. (previously presented) The process of claim 106 wherein said plasticizer is selected from a group consisting of glycerin, propylene glycol, ethylene glycol, and polyethylene glycol or mixtures thereof.
120. (previously presented) The process of claim 106 wherein said surface active agent is selected from a group consisting of polyoxethylene sorbitan monolaurate, polyoxethylene sorbitan monopalmitate, polyoxethylene sorbitan monooleate, polyoxyethylene sorbitan trioleate, polyoxethylene-polyoxypropylene block polymer, or a mixture thereof.

121. (previously presented) The process of claim 106 where in the di- or trivalent cation metal salt complexing the water soluble alginate is calcium sulphate.
122. (previously presented) the process of claim 106 wherein the di- or trivalent cation metal salt complexing the water soluble alginate is calcium chloride.
123. (previously presented) The process of claim 106 wherein the di- or trivalent cation metal salt complexing the water soluble alginate is calcium acetate.
124. (previously presented) A water-insoluble alginate sponge or foam wound dressing containing viable cells.
125. (previously presented) A water-insoluble alginate sponge or foam wound dressing containing a medicinal agent.
126. (previously presented) A water-insoluble calcium alginate sponge or foam wound dressing containing a medicinal agent.
127. (previously presented) A water-insoluble barium alginate sponge or foam wound dressing containing a medicinal agent.
128. (previously presented) A water-insoluble copper alginate sponge or foam wound dressing containing a medicinal agent.
129. (previously presented) A water-insoluble magnesium alginate sponge or foam wound dressing containing a medicinal agent.
130. (previously presented) A water-insoluble iron ~~alginate~~ alginate sponge or foam wound dressing containing a medicinal agent.
131. (previously presented) A water-insoluble zinc alginate sponge or foam wound dressing containing a medicinal agent.
132. (previously presented) A water-insoluble aluminum alginate sponge or foam wound dressing containing a medicinal agent.
133. (previously presented) A water-insoluble manganese alginate sponge or foam wound dressing containing a medicinal agent.
134. (previously presented) A water-insoluble silver alginate sponge or foam wound dressing containing a medicinal agent.
135. (previously presented) A water insoluble strontium alginate sponge or

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foam wound dressing containing a medicinal agent.

136. (previously presented) A water-insoluble calcium alginate sponge or foam wound dressing containing collagen.

137. (previously presented) A water-insoluble calcium alginate sponge or foam wound dressing containing maltodextrin.

138. (previously presented) A water-insoluble calcium alginate sponge or foam wound dressing containing antibiotics.

139. (previously presented) A water-insoluble calcium alginate sponge or foam wound dressing containing an antibacterial agent.

140. (previously presented) A water-insoluble calcium alginate sponge or foam wound dressing containing anti-inflammatory agents.

141. (previously presented) A water-insoluble calcium alginate sponge or foam wound dressing containing ascorbic acid.

142. (previously presented) A water-insoluble calcium alginate sponge or foam wound dressing containing amino acids.

143. (previously presented) A water-insoluble silver alginate sponge or foam wound dressing containing collagen.

144. (previously presented) A water-insoluble silver alginate sponge or foam wound dressing containing maltodextrin.

145. (previously presented) A water-insoluble silver alginate sponge or foam wound dressing containing antibiotics.

146. (previously presented) A water-insoluble silver alginate sponge or foam wound dressing containing antibacterial agents.

147. (previously presented) A water-insoluble silver alginate sponge or foam wound dressing containing anti-inflammatory agents.

148. (previously presented) A water-insoluble silver alginate sponge or foam wound dressing containing ascorbic acid.

149. (previously presented) A water-insoluble silver alginate sponge or foam wound dressing containing amino acids.

150. (new) A silver alginate wound dressing.

151. (new) A silver alginate-calcium alginate wound dressing.